

AgroPortal: an ontology repository for agronomy

Clement Jonquet, Anne Toulet, Vincent Emonet and Pierre Larmande

SPEAKER: Clement Jonquet

ABSTRACT. Many vocabularies and ontologies are produced to represent and annotate agronomic data. Therefore, there is a need of a common platform to identify, host and use them in agro-informatics application. By reusing the NCBO BioPortal technology, we have designed AgroPortal an ontology repository for the agronomy domain. The AgroPortal project aims at reusing the scientific outcomes and experience of the biomedical domain in the context of plant, agronomy, food, and biodiversity. We offer an ontology portal which features ontology hosting, search, versioning, visualization, comment, recommendation, enables semantic annotation, as well as storing and exploiting ontology alignments. All of these within a fully semantic web compliant infrastructure. The AgroPortal specifically pays attention to respect the requirements of the agronomic community in terms of ontology formats (e.g., SKOS, trait dictionaries) or supported features. In this demonstration, we will present our platform currently open and accessible at <http://agroportal.lirmm.fr>.

TECHNICAL CONTENT. The demonstration will show the features offered by the portal, including:

- to search and browse across all the ontologies,
- to annotate a piece of text with all the ontologies,
- to store and serve mappings between ontologies (within the portal or not),
- to recommend ontologies for given text input,
- to list project using ontologies.
- ontology versioning, UI widgets, ontology metrics
- community feedback (comment, subscription to ontology changes), users' management, private access to ontologies.

In addition, two endpoints allow automatic querying of the content of the portal: (i) a REST web Service API (<http://data.agroportal.lirmm.fr>) and (ii) a SPARQL endpoint (<http://sparql.agroportal.lirmm.fr>). They will be shortly illustrated also.

ORIGINALITY. We have now an advanced prototype platform (<http://agroportal.lirmm.fr>) that currently hosts 62 ontologies or vocabularies – including 4 private ones and 40 not originally present in BioPortal or any public repository. We have identified 77 candidate ontologies and we are working daily to import new ones while involving/informing the original ontology developers. The platform counts already 51 registered users.